

CLAIMS

1. A content moving device for moving stored content to a portable recording medium, comprising:

a storage unit storing original content;

5 a generation unit operable to perform irreversible conversion on the original content, which lowers a quality thereof, to generate converted content;

an extraction unit operable to extract partial data which is part of the original content;

10 a replacing unit operable to replace a portion of the original content corresponding to the extracted partial data with different data; and

a write unit operable to write the converted content and the extracted partial data to the recording medium.

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2. The content moving device of Claim 1, wherein the extraction unit extracts the partial data, being of a predetermined length, from a predetermined position of the original content.

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3. The content moving device of Claim 2, wherein

the original content includes at least intraframe-coded compressed frame images, and

25 the extraction unit extracts part or all of the intraframe-coded compressed frame images as the partial data.

4. The content moving device of Claim 3, wherein

the original content is composed of a plurality of fixed length data blocks,

the extraction unit extracts a single data block from the plurality of data blocks, judges whether part of the
5 intraframe-coded compressed frame images is included in the extracted data block, and if included, outputs the extracted data block as the partial data, and

the replacing unit replaces the portion of the original content corresponding to the extracted data block with
10 different data.

5. The content moving device of Claim 4, wherein

the data blocks constituting the original content are generated by encrypting a digital copyrighted work per the
15 fixed length,

the extraction unit includes:

a decryption subunit operable to decrypt the extracted data block to generate a decrypted data block; and

20 a judging subunit operable to judge whether part of the intraframe-coded compressed frame images is included in the decrypted data block, and if included, output the extracted data block as the partial data, and

the replacing unit replaces the portion of the original content corresponding to the decrypted data block judged to
25 include the part of the intraframe-coded compressed frame images with different data.

6. The content moving device of Claim 5, wherein the write

unit, instead of writing the partial data to the recording medium, further encrypts, using a medium key of the recording medium, the decrypted data block judged to include part of the intraframe-coded compressed frame images, and writes the 5 encrypted data block to the recording medium.

7. The content moving device of Claim 6, wherein
the write unit includes:

a key holding subunit operable to hold the medium key;
10 an encryption subunit operable to encrypt the decoded data block using the medium key;
a write subunit operable to write the encrypted data block and the medium key to the recording medium; and
a key erasing subunit operable to erase the medium key
15 held in the key holding subunit.

8. The content moving device of Claim 1, wherein
the extraction unit further outputs a position in the original content of the extracted partial data, and
20 the write unit further writes the position of the extracted partial data to the recording medium.

9. The content moving device of Claim 1, being operable to move converted content recorded on the recording medium to
25 the content moving device, wherein
the recording medium has recorded thereon the converted content and the partial data,
the storage unit has stored therein replaced content

which is the original content in which the portion corresponding to the partial data has been replaced with different data, and

the content moving device further comprising:

5 a read unit operable to read the partial data from the recording medium having the converted content and the partial data recorded thereon;

a re-replacing unit operable to replace the replaced portion with the partial data read by the read unit; and

10 an erase unit operable to erase the partial data and the converted content from the recording medium.

10. The content moving device of Claim 9, wherein

the portion, being of a predetermined length from a 15 predetermined position of the replaced content stored in the storage unit, has been replaced with different data, and

the re-replacing unit replaces the portion which is of the predetermined length from the predetermined position of the replaced content with the read partial data.

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11. The content moving device of Claim 10, wherein

the replaced content is composed of a plurality of fixed length data blocks,

the data block corresponding to the portion which is 25 of the predetermined length from the predetermined position of the replaced content stored in the storage unit has been replaced with different data,

the partial data is a single data block from the

plurality of data blocks, and

the re-replacing unit replaces the replaced data block
with the read partial data.

5 12. The content moving device of Claim 11, wherein

the data blocks constituting the replaced content are
generated by encrypting a digital copyrighted work per the
fixed length,

the recording medium has recorded thereon reencrypted
10 data generated by decrypting the extracted partial data and
encrypting the decrypted partial data using the medium key
of the recording medium,

the read unit, instead of reading the partial data from
the recording medium, reads the reencrypted data,

15 the re-replacing unit, instead of replacing the
replaced data block of the replaced content with the read
partial data, decrypts the reencrypted data using the medium
key, performs encryption, being the same as an encryption
performed on the digital copyrighted work, on the decrypted
20 data to generate the partial data, and replaces the replaced
data block of the replaced content with the generated partial
data.

13. The content moving device of Claim 12, wherein

25 the medium key is stored on the recording medium, and
the re-replacing unit includes:

a key reading subunit operable to read the medium key
from the recording medium;

a decryption subunit operable to decrypt the reencrypted data using the medium key;

an encryption subunit operable to perform encryption, being the same as the encryption performed on the digital

5 copyrighted work, on the decrypted data to generate the partial data;

a replacing subunit operable to replace the replaced data block with the generated partial data; and

10 a key erase subunit operable to erase the medium key stored on the recording medium.

14. The content moving device of Claim 9, wherein

the recording medium further has stored thereon a position of the partial data in the original content,

15 the read unit further reads the position from the recording medium, and

the re-replacing unit replaces data of the replaced content stored in the storage unit with the read partial data, the data being at the position.

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15. A content moving method used in a content moving device, which includes a storage unit with content stored therein, for moving the content to a portable recording medium, comprising the steps of:

25 generating converted content by performing irreversible conversion on the content, which lowers a quality thereof;

extracting partial data, being part of the content;

replacing a portion of the content corresponding to the extracted partial data with different data; and

writing the converted content and the extracted partial data to the recording medium.

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16. A computer program used in a content moving device, comprising a storage unit with content stored therein, for moving the content to a portable recording medium, comprising the steps of:

10 generating converted content by performing irreversible conversion on the content, which lowers a quality thereof;

extracting partial data, being part of the content;

15 replacing a portion of the content corresponding to the extracted partial data with different data; and

writing the converted content and the extracted partial data to the recording medium.

17. A recording medium, being computer-readable and having
20 the computer program of Claim 16 recorded thereon.

18. A recording medium, having recorded thereon converted content, being a content irreversibly converted to lower a quality thereof, and partial data extracted from the content.

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19. A content moving system composed of a portable recording medium and a content moving device for moving stored content to the recording medium,

the content moving device including:

a storage unit storing the content;

a generation unit operable to perform irreversible conversion on the content, which lowers a quality thereof,

5 to generate converted content;

an extraction unit operable to extract partial data, being part of the content;

a replacing unit operable to replace a portion of the content corresponding to the extracted partial data with

10 different data; and

a write unit operable to write the converted content and the extracted partial data to the recording medium, and

a storage area for storing therein the converted content and the partial data being provided in the recording

15 medium.